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Sequence Listing was accepted.
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Reviewer: Durreshwar Anjum
Timestamp: [year=2008; month=12; day=15; hr=14; min=26; sec=27; ms=87; ]
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**Validated By CRFValidator v 1.0.3**

Application No: 10580085 Version No: 2.0

**Input Set:**

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**Finished:** 2008-12-02 14:01:42.193
**Elapsed:** 0 hr(s) 0 min(s) 1 sec(s) 223 ms
**Total Warnings:** 9
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**No. of SeqIDs Defined:** 18
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SEQUENCE LISTING

<110> CropDesign N.V.

<120> Seedy1 sequence for making plants having changed growth characteristics

<130> CD-105-PCT

<140> 10580085
<141> 2008-12-02

<150> US 60/528,113
<151> 2003-12-09

<150> EP 03104280.7
<151> 2003-11-19

<160> 18

<170> PatentIn version 3.3

<210> 1
<211> 1428
<212> DNA
<213> Nicotiana tabacum

<220>
<221> misc_feature
<223> seedy1 coding sequence (CDS0689)

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gcagcatttg ataatggaga ttctgaagat ttgtcttcgc tgaaacgttc ttggtctcct 120

ctgaaacccc tttcggttag gccatcagat tcctttgaat ctgatttgtc aagtaaggaa 180

aatcaaactc ctttatttga gaattcatct gttaatctct catctccgtt acccataaag 240

ccacttaacc ctaatggggc tctggaaaat tcaagactca agccgaacaa gcccaattcc 300

aaacagagtc ttgatgagat ggcggctaga aagagcggaa agggaaatga tttccgtgat 360

gagaagaaaa tagacgagga aattgaagaa attcagatgg agattagtag gttgagttca 420

agattagagg ctttgagaat tgaaaaggct gagaaaactg ttgctaagac tgttgaaaag 480

cgaggaaggg ttgtggcagc aaagtttatg gagccaaaac aaagtgttat taagattgaa 540

gagcgtatat caatgagtgc aagaacaaag gtggagcaga gaaggggtct tagtttagga 600

ccatctgaga tttttactgg aacgcggcgg cgagggttga gtatggggcc atcagatatt 660

ctagcaggga caacaaaggc acggcaattg ggaaagcaag agatgattat tactcctatt 720

cagccaatac aaaacaggcg aaagtcgtgt ttttggaagc ttcaagagat tgaagaagag 780

ggaaaaagtt caagccttag tcctaaatca agaaaaactg ctgcaagaac aatggttaca 840

acaaggcagg cagttactac aattgcatca aagaagaatt tgaaaaaaga tgatggactt 900

ttgagttcag ttcagccaaa gaagttgttt aaagatctcg aaaagtctgc tgctgctaat 960

aagaagcccc agaggccggg gagggttgtg gctagtaggt ataatcagag tacaattcag 1020

tcatcagtag tgagaaagag gtctttacct gaaaatgata aggatgagag taagagaaat 1080

gataagaaac ggtcgttatc tgtagggaaa acgcgtgtgt ctcaaactga gagcaagaat 1140

ttgggtactg aaagtagggt gaaaaagaga tgggaaattc ctagtgagat tgtagttcat 1200

ggaaacacag agagtgagaa atctccacta agcattattg tgaagcctga tttgcttccg 1260

cgaattagga ttgctcggtg tgtgaatgag actcttaggg attctggacc tgctaaaaga 1320

atgatagagt tgataggcaa gaaatcgttt ttcagtagtg atgaagataa ggagccacct 1380

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<210> 2
<211> 475
<212> PRT
<213> Nicotiana tabacum

<220>
<221> MISC_FEATURE
<223> seedy1 protein (CDS0689)

<400> 2

Met Ser Val Leu Gln Tyr Pro Glu Gly Ile Asp Pro Ala Asp Val Gln
1 5 10 15

Ile Trp Asn Asn Ala Ala Phe Asp Asn Gly Asp Ser Glu Asp Leu Ser
20 25 30

Ser Leu Lys Arg Ser Trp Ser Pro Leu Lys Pro Leu Ser Val Arg Pro
35 40 45

Ser Asp Ser Phe Glu Ser Asp Leu Ser Ser Lys Glu Asn Gln Thr Pro
50 55 60

Leu Phe Glu Asn Ser Ser Val Asn Leu Ser Ser Pro Leu Pro Ile Lys
65 70 75 80

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Pro Leu Asn Pro Asn Gly Ala Leu Glu Asn Ser Arg Leu Lys Pro Asn
                85                  90                  95

Lys Pro Asn Ser Lys Gln Ser Leu Asp Glu Met Ala Ala Arg Lys Ser
            100                 105                 110

Gly Lys Gly Asn Asp Phe Arg Asp Glu Lys Lys Ile Asp Glu Glu Ile
        115                 120                 125

Glu Glu Ile Gln Met Glu Ile Ser Arg Leu Ser Ser Arg Leu Glu Ala
    130                 135                 140

Leu Arg Ile Glu Lys Ala Glu Lys Thr Val Ala Lys Thr Val Glu Lys
145                 150                 155                 160

Arg Gly Arg Val Val Ala Ala Lys Phe Met Glu Pro Lys Gln Ser Val
                165                 170                 175

Ile Lys Ile Glu Glu Arg Ile Ser Met Ser Ala Arg Thr Lys Val Glu
            180                 185                 190

Gln Arg Arg Gly Leu Ser Leu Gly Pro Ser Glu Ile Phe Thr Gly Thr
        195                 200                 205

Arg Arg Arg Gly Leu Ser Met Gly Pro Ser Asp Ile Leu Ala Gly Thr
    210                 215                 220

Thr Lys Ala Arg Gln Leu Gly Lys Gln Glu Met Ile Ile Thr Pro Ile
225                 230                 235                 240

Gln Pro Ile Gln Asn Arg Arg Lys Ser Cys Phe Trp Lys Leu Gln Glu
                245                 250                 255

Ile Glu Glu Glu Gly Lys Ser Ser Ser Leu Ser Pro Lys Ser Arg Lys
            260                 265                 270

Thr Ala Ala Arg Thr Met Val Thr Thr Arg Gln Ala Val Thr Thr Ile
        275                 280                 285

Ala Ser Lys Lys Asn Leu Lys Lys Asp Asp Gly Leu Leu Ser Ser Val
    290                 295                 300

Gln Pro Lys Lys Leu Phe Lys Asp Leu Glu Lys Ser Ala Ala Ala Asn
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305 310 315 320

Lys Lys Pro Gln Arg Pro Gly Arg Val Val Ala Ser Arg Tyr Asn Gln
325 330 335

Ser Thr Ile Gln Ser Ser Val Val Arg Lys Arg Ser Leu Pro Glu Asn
340 345 350

Asp Lys Asp Glu Ser Lys Arg Asn Asp Lys Lys Arg Ser Leu Ser Val
355 360 365

Gly Lys Thr Arg Val Ser Gln Thr Glu Ser Lys Asn Leu Gly Thr Glu
370 375 380

Ser Arg Val Lys Lys Arg Trp Glu Ile Pro Ser Glu Ile Val Val His
385 390 395 400

Gly Asn Thr Glu Ser Glu Lys Ser Pro Leu Ser Ile Ile Val Lys Pro
405 410 415

Asp Leu Leu Pro Arg Ile Arg Ile Ala Arg Cys Val Asn Glu Thr Leu
420 425 430

Arg Asp Ser Gly Pro Ala Lys Arg Met Ile Glu Leu Ile Gly Lys Lys
435 440 445

Ser Phe Phe Ser Ser Asp Glu Asp Lys Glu Pro Pro Val Cys Gln Val
450 455 460

Leu Ser Phe Ala Glu Glu Asp Ala Glu Glu Glu
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<210> 3
<211> 1336
<212> DNA
<213> Oryza sativa

<220>
<221> misc_feature
<223> seedy1 coding sequence

<400> 3
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tcctcgtgtt ccagatcggc ttggctcccc caaagccccg ccgtcgcggc cgtccgcaag 120

ggcgacaagg agaatcaccg ccccgaggtt gttgatgtcg ccgccggcta cgacgtcgag 180

gccgagatcg gccacatcga ggcggagatc ctgcgcctct cgtcccggct ccaccatctc 240

cgcgtctcca agcagccgga gcccaaccgc gacgacgctc cgatggggga gatggtcgcg 300

aaggtgaggc cccggccgag gggcctcagc ctcgggcccc tggatgtgat ctccatcgtc 360

aatcgtgaga agcatccgct gcgcaccaag cagcctccgg cgacgcgggg caggggggctc 420

agcctcgggc ccatggagat cgccgcggcg aaccctaggg tgcccgcggc ggcgcagcat 480

cagcaacagc aacgcgctgg cacggcgcgg atcctgaagc caatcaagga gcctccggtg 540

cagcgtcgca ggggcgtcag cctcgggccg ttggagatcc accacggcgt cggcagcaag 600

gcaccagcgg cggcgcgagc caagccgttc accaccaagc tcaacgccat tcgagaagaa 660

acccgaccct ccaagcaatt cgccgtcccc gccaagccat ggccgtcgag caatacaagg 720

cagacactgg actcgaggca aggaacagca gcaagtcgag cgaaggcgag gagcccgagc 780

cccaggccca ggaggcaatc caatggcaag gctactgaca caaggggagg caacaaggtg 840

gtggatgagc tcaagcccaa aggtgcgtcg tcaagtcaga gcggcagcgc cgccgccgcc 900

gccactgcca agaggatggc ggggagctcc aagatgaggg tcatcccgag ccgctacagc 960

ctcactcctg gcgcttccct tggaagcagt ggagcacagg agaggcgacg caagcagtct 1020

ctcccaggat catcagggga tgcgaaccag aatgaggaaa tcagagcgaa ggtcatcgag 1080

ccttccaatg atccactctc tcctcaaacg atctccaagg ttgctgaaat gctcccaaag 1140

atcaggacca tgccgcctcc tgacgagagc cctcgcgatt ccggatgcgc caagcgggtt 1200

gccgaattgg tcgggaagcg ctcgttcttc acggctgcag ccgaggacgg gcgggcgctc 1260

gacgtcgaag cacccgaggc ggtcgcagaa gcttgagatg aaccaccatg gtttgatccg 1320

ttccttccat cagctc 1336

<210> 4
<211> 431
<212> PRT
<213> Oryza sativa

<220>
<221> MISC_FEATURE
<223> seedy1 protein

<400> 4

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Ala Phe Asp Asp Ser Ser Cys Ser Arg Ser Ala Trp Leu Pro Gln Ser
            20                  25                  30

Pro Ala Val Ala Ala Val Arg Lys Gly Asp Lys Glu Asn His Arg Pro
        35                  40                  45

Glu Val Val Asp Val Ala Ala Gly Tyr Asp Val Glu Ala Glu Ile Gly
    50                  55                  60

His Ile Glu Ala Glu Ile Leu Arg Leu Ser Ser Arg Leu His His Leu
65                  70                  75                  80

Arg Val Ser Lys Gln Pro Glu Pro Asn Arg Asp Asp Ala Pro Met Gly
                85                  90                  95

Glu Met Val Ala Lys Val Arg Pro Arg Pro Arg Gly Leu Ser Leu Gly
            100                 105                 110

Pro Leu Asp Val Ile Ser Ile Val Asn Arg Glu Lys His Pro Leu Arg
        115                 120                 125

Thr Lys Gln Pro Pro Ala Thr Arg Gly Arg Gly Leu Ser Leu Gly Pro
    130                 135                 140

Met Glu Ile Ala Ala Ala Asn Pro Arg Val Pro Ala Ala Ala Gln His
145                 150                 155                 160

Gln Gln Gln Gln Arg Ala Gly Thr Ala Arg Ile Leu Lys Pro Ile Lys
                165                 170                 175

Glu Pro Pro Val Gln Arg Arg Arg Gly Val Ser Leu Gly Pro Leu Glu
            180                 185                 190

Ile His His Gly Val Gly Ser Lys Ala Pro Ala Ala Ala Arg Ala Lys
        195                 200                 205

Pro Phe Thr Thr Lys Leu Asn Ala Ile Arg Glu Glu Thr Arg Pro Ser
    210                 215                 220

Lys Gln Phe Ala Val Pro Ala Lys Pro Trp Pro Ser Ser Asn Thr Arg
225                 230                 235                 240
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Gln Thr Leu Asp Ser Arg Gln Gly Thr Ala Ala Ser Arg Ala Lys Ala
                245                 250                 255

Arg Ser Pro Ser Pro Arg Pro Arg Arg Gln Ser Asn Gly Lys Ala Thr
            260                 265                 270

Asp Thr Arg Gly Gly Asn Lys Val Val Asp Glu Leu Lys Pro Lys Gly
        275                 280                 285

Ala Ser Ser Ser Gln Ser Gly Ser Ala Ala Ala Ala Ala Thr Ala Lys
    290                 295                 300

Arg Met Ala Gly Ser Ser Lys Met Arg Val Ile Pro Ser Arg Tyr Ser
305                 310                 315                 320

Leu Thr Pro Gly Ala Ser Leu Gly Ser Ser Gly Ala Gln Glu Arg Arg
                325                 330                 335

Arg Lys Gln Ser Leu Pro Gly Ser Ser Gly Asp Ala Asn Gln Asn Glu
            340                 345                 350

Glu Ile Arg Ala Lys Val Ile Glu Pro Ser Asn Asp Pro Leu Ser Pro
        355                 360                 365

Gln Thr Ile Ser Lys Val Ala Glu Met Leu Pro Lys Ile Arg Thr Met
    370                 375                 380

Pro Pro Pro Asp Glu Ser Pro Arg Asp Ser Gly Cys Ala Lys Arg Val
385                 390                 395                 400

Ala Glu Leu Val Gly Lys Arg Ser Phe Phe Thr Ala Ala Ala Glu Asp
                405                 410                 415

Gly Arg Ala Leu Asp Val Glu Ala Pro Glu Ala Val Ala Glu Ala
            420                 425                 430
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<210> 5
<211> 1860
<212> DNA
<213> Medicago trunculata

<220>

<221> misc_feature
<223> seedy1 coding sequence

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cctatttaca gggatcttaa atataattaa ccctaatatt tatgacagaa acccttttga 120

aatcacatcg gagcgtgtat gagtagccgt ttcacatcca acggccagta agagcgtaac 180

tttatttctt ccctcttcaa tctccaacgg tcacataatc tcttccaaat acaaataatt 240

ccctctttca acctcactct tcatttcttc aacccaaacc caaaaaacta atcagattct 300

tcttaaatct tgaaaccttt ctcccaaaag cacttaaata aaaaagcact taaccatgaa 360

taacacaaac aacaacaaca ttcttcttca ttccacacag gttcaagtgt ggaacaacgc 420

agcattcgat ggtgaagatt tcgccatgaa ttcatcttct gattccatca aagagaatct 480

aaacccatcc gcattcaaca ttgttccttc ttcaaacaaa agaactattg atgatgaaat 540

tgcggaaatt gaaagtgaaa ttaagcgatt aacttcgaag ctggaattgc ttcgtgttga 600

aaaagctgaa agaaaaatcg cttctgaaaa gcgtgttagt ggaattggta ctggaagaat 660

agtagcagcg aagtttatgg aaccgaagaa aaacgttaca ccgaaacgaa acggtgtcgt 720

tttcaaggag gagacaccga aacgaaacgg tgtcgtttcg gatacgccga aatctagggt 780

taattggaga agagggatga gtttaggtcc gatggagatt gccgggaaag tgatggcacc 840

gccggcgatg acgattactc cggcgacggt gaatcggagg aagtcttgtt tctggaaacc 900

gcaggaaagt tgtgaagtaa tgccgtcggg gattactccg gcgacggtga ataggaggaa 960

atcttgtttt ttgaaacctc aagaaagttg tgaagaaaat cgaagaaaaa cgatttgcaa 1020

accgaatttg aatttgaatt caaattcagt taattctgcg gttggatcga ttaagcgtgt 1080

gaagaagaaa gatgaagaaa ttgctcaggt tcaaccgaag aagctgtttg aaggtgaaaa 1140

atcagtgaag aaatcgttga aacaaggtag aattgttgca agccggtata attccggtgg 1200

tggtggtggt gatgcgagga aaagatcgtt ttcggagaat aataagggtt tagggagtga 1260

aatcagggct aagaagagat gggagatacc aattgaagaa gtggatgtga gtggttttgt 1320

tatgttaccg aagatttcga caatgaggtt tgttgatgag agtcctagag attctggtgc 1380

tgttaaaaga gttgctgaat tgaatggaaa aagatcttac ttttgtgatg aagatgagga 1440

ggagagagtg atggtggagg aagaaggtgg ttctgtttgt caggttttga attttgctga 1500

agatgatgat gatgatgatg attatggtga acaagggtaa ttgtggaaat tggaattgat 1560

ttgtttttgt ggggttgtgt ggaactggct atgttctgct tgattctttt gcattttggt 1620

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tgaaataata acaacaagca tgtgtcttgc ttaataattg tatattgttt tgtttgtttt 1740

ataatgatat ggatttaatt tgtatacaca atataatata gtatgcattg agagagtttt 1800

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<211> 394
<212> PRT
<213> Medicago trunculata

<220>
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<223> seedy1 protein

<400> 6

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Gln Val Trp Asn Asn Ala Ala Phe Asp Gly Glu Asp Phe Ala Met Asn
20 25 30

Ser Ser Ser Asp Ser Ile Lys Glu Asn Leu Asn Pro Ser Ala Phe Asn
35 40 45

Ile Val Pro Ser Ser Asn Lys Arg Thr Ile Asp Asp Glu Ile Ala Glu
50 55 60

Ile Glu Ser Glu Ile Lys Arg Leu Thr Ser Lys Leu Glu Leu Leu Arg
65 70 75 80

Val Glu Lys Ala Glu Arg Lys Ile Ala Ser Glu Lys Arg Val Ser Gly
85 90 95

Ile Gly Thr Gly Arg Ile Val Ala Ala Lys Phe Met Glu Pro Lys Lys
100 105 110

Asn Val Thr Pro Lys Arg Asn Gly Val Val Phe Lys Glu Glu Thr Pro
115 120 125

Lys Arg Asn Gly Val Val Ser Asp Thr Pro Lys Ser Arg Val Asn Trp
130 135 140

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Arg Arg Gly Met Ser Leu Gly Pro Met Glu Ile Ala Gly Lys Val Met
145                 150                 155                 160

Ala Pro Pro Ala Met Thr Ile Thr Pro Ala Thr Val Asn Arg Arg Lys
                165                 170                 175

Ser Cys Phe Trp Lys Pro Gln Glu Ser Cys Glu Val Met Pro Ser Gly
            180                 185                 190

Ile Thr Pro Ala Thr Val Asn Arg Arg Lys Ser Cys Phe Leu Lys Pro
        195                 200                 205

Gln Glu Ser Cys Glu Glu Asn Arg Arg Lys Thr Ile Cys Lys Pro Asn
    210                 215                 220

Leu Asn Leu Asn Ser Asn Ser Val Asn Ser Ala Val Gly Ser Ile Lys
225                 230                 235                 240

Arg Val Lys Lys Lys Asp Glu Glu Ile Ala Gln Val Gln Pro Lys Lys
                245                 250                 255

Leu Phe Glu Gly Glu Lys Ser Val Lys Lys Ser Leu Lys Gln Gly Arg
            260                 265                 270

Ile Val Ala Ser Arg Tyr Asn Ser Gly Gly Gly Gly Gly Asp Ala Arg
        275                 280                 285

Lys Arg Ser Phe Ser Glu Asn Asn Lys Gly Leu Gly Ser Glu Ile Arg
    290                 295                 300

Ala Lys Lys Arg Trp Glu Ile Pro Ile Glu Glu Val Asp Val Ser Gly
305                 310                 315                 320

Phe Val Met Leu Pro Lys Ile Ser Thr Met Arg Phe Val Asp Glu Ser
                325                 330                 335

Pro Arg Asp Ser Gly Ala Val Lys Arg Val Ala Glu Leu Asn Gly Lys
            340                 345
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